



3-SD-06-C  
3-G-06-UR  
#17

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TO: MPC Staff and Planning Commissioners

FROM: Ron W. Worley, Jr., President, Worley Builders, Inc.

MEETING DATE: March 9, 2006

SUBJECT: File Number 3-SD-06-C & 3-G-06-UR

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I. Site Drainage

- A. AMEC has “**Delineated**” the site and identified (2) two small wetlands.
- B. **Ken Jones with U.S. Army Corps. Of Engineers** has been on site and agrees with the delineated areas.
- C. **Larry Everette with T.D.E.C., Water Pollution Control**, has been on site and agrees with the delineated areas.
- D. **Greg Babbitt with TSMP (Tennessee Stream Mitigation Program)** has been on site and analyzed the streams across the subject property and is recommending this site for their program. (Please see attached “TSMP” Brochure for explanation of the program.)

II. Design

- A. “**Conservation Easement**” has been proposed on the submitted Concept Plan to provide a “Low Impact” Development and preserve the natural surroundings of this property.
- B. Common areas, a large “Green Space” and deeper lots have been intentionally designed to allow neighboring properties the largest buffers possible.
- C. There are no variance request to allow for an ideal concept design.

III. Road Conditions

- A. Per **Traffic Impact Study** performed by **Cannon & Cannon P.E.** the roads are sufficient.
- B. Per **Bruce Weuthrich** on Wednesday, February 22, 2006, the roads are sufficient.

IV. Neighborhood Meeting

- A. On February 15, 2006 at 5:30 p.m. (2) two officers with Worley Builders, Inc. along with myself met with any concerned area property owners. I gave them a copy of our Concept Plan and answered their questions. **Greg Babbit** with the TSMP was also kind enough to attend our meeting and explain their Stream Mitigation Program and Encourage them to participate along with us. (see attached Property Registration Sheet).

Thank you for your consideration of granting my request.

2/15/06 5:30 P.M.

meeting with Bud Hawkins Rd. property owners  
& Greg Babbitt w/ T.S. MPC

<u>Signature</u>	<u>Address</u>
	President Worley Builders, Inc.
	V.P. of OPERATIONS WORLEY BUILDERS, INC.
	U.P. OF REAL ESTATE WORLEY BUILDERS INC.
Jerry Armstrong	7805 Bud Hawkins Rd., Coryton TN 37721-4303
Tom Woods	7811 Bud Hawkins Rd., Coryton TN 37721-4303
Ron Smith	7722 Bud Hawkins Rd., Coryton, TN 37721-4302
James Trout	7608 Bud Hawkins Rd, Coryton, TN 37721
George Lee	7610 Bud Hawkins Rd., Coryton, TN 37721-4301

..... **INTRODUCTION**

The southeastern United States boasts some of the most diverse freshwater habitats in the world. Tennessee alone has more than 60,000 miles of freshwater streams, but these seemingly endless aquatic resources are being altered at an alarming rate. From the dark, slow-moving bayous meandering through the bottomland hardwoods of West Tennessee to the rushing trout streams cascading down the Appalachian Mountains in East Tennessee, these resources are seriously threatened by human activities. Many of the problems facing aquatic habitats are caused by changes in land use, including agricultural and forestry practices, mining operations, impoundments, and mechanized land clearing associated with development. These changes have had a profound impact on both physical and chemical water quality and have resulted in the elimination or significant degradation of the aquatic habitat that supports Tennessee's rich aquatic biodiversity.

Though many of the activities that threaten aquatic resources are not regulated, direct physical alterations to Tennessee's streams are regulated by both state and federal agencies. The U.S. Army Corps of Engineers (USACE) regulates dredge and fill activities under §404 of the federal Clean Water Act (CWA). The Tennessee Department of Environment and Conservation's (TDEC) Division of Water Pollution Control regulates physical alterations under §401 CWA and the Tennessee Water Quality Control Act of 1977 (TWQCA). The Tennessee Valley Authority (TVA) asserts jurisdiction over alterations to the Tennessee River and its tributaries under §26a of the Tennessee Valley Authority Act (TVA Act). These regulations state that for any permitted alteration that results in a loss or degradation, agencies will require compensatory mitigation, which is the process of replacing enhanced the resource value of degraded systems. Permitted alterations that could require compensatory mitigation include fill, encapsulation, channel modifications, channel relocations, and impoundments.

Until recently, compensatory mitigation has been solely the responsibility of the permittee. The result has often been poorly designed projects that fail to fully offset impacts. The Tennessee Stream Mitigation Program (TSMMP) was created to reverse this trend by placing the obligation of compensatory mitigation in the hands of resource managers with the knowledge and expertise to implement mitigation projects that adequately offset permitted physical impacts.

..... **ABOUT THE TSMMP**

The Tennessee Stream Mitigation Program (TSMMP) is a product of the Stream Mitigation Review Team (SMRT), an interagency committee composed of resource managers from the USACE, TDEC, the U.S. Environmental Protection Agency (EPA), TVA, the U.S. Fish and Wildlife Service (USFWS), and the Tennessee Wildlife Resources Agency (TWRA). Through this program, a permittee has the option to pay a fee to the TSMMP to provide the compensatory stream mitigation required. The advantage of this mitigation option is that the work is performed by experienced professionals under the direction of the SMRT. The SMRT directs the establishment, use, and operation of the TSMMP. As such, the result should be meaningful compensatory mitigation that benefits habitat and water quality throughout the state.

The Tennessee Wildlife Resources Foundation (TWRFF) sponsors this new program. Founded in 1999, the TWRFF is a nonprofit organization that supports the interests of the Tennessee Wildlife Resources Agency. The TWRFF raises money by soliciting gifts, donations, grants, contracts, and memorial bequests to be used for land acquisition, educational programs, and research. The TWRFF is an ideal host for this program because both it and the TSMMP share one overriding objective: to conserve and protect Tennessee's unique and threatened natural resources.

..... **HOW THE TSMMP WORKS**

The TSMMP funds mitigation projects on degraded streams throughout the state. Through valuable partnerships with government agencies such as the Natural Resources Conservation Service (NRCS), TDEC, the Tennessee Department of Agriculture (TDA), and nonprofit conservation groups, the TSMMP identifies streams where the physical habitat has been impaired or degraded. With permission and cooperation from participating riparian landowners, the TSMMP designs and implements mitigation projects that benefit both the stream and the landowner. All TSMMP projects are constructed at no cost to the landowner. Mitigation projects are monitored for success over a period of two to five years and must be protected by perpetual conservation easements held by the TWRFF. Some examples of mitigation opportunities and techniques are listed below.

**Stream Restoration** Changes in land use have had a profound effect on Tennessee's streams. Riparian forests were converted to agricultural lands, and streams were channelized to facilitate drainage and abate flooding. As a result, many of the natural functions of these altered streams have been destroyed. **Stream restoration** is the process of returning a significantly degraded, disturbed, or totally altered stream, including the adjacent riparian zone and flood-prone area, to a natural stable condition based on reference conditions. Restoration will typically include rebuilding the appropriate channel pattern, profile, dimensions, and riparian zone to the extent that watershed conditions will allow.



**Bank Stabilization** Sediment is the single largest pollutant of Tennessee streams. Excessive sedimentation can result in the elimination of critical habitat for invertebrates and spawning fish. Sediment is introduced into streams from many different sources.



**Bank Stabilization** Runoff from agricultural fields, commercial and residential land development, and unsound forestry practices transports tremendous quantities of sediment into our streams. Stream bank erosion is another major source of sediment. It can be caused by natural channel evolution, but more commonly is a symptom of the loss of riparian vegetation. **Bank stabilization** is the process of permanently stabilizing actively eroding stream banks. This can be accomplished by re-sloping vertical banks and using bio-engineering techniques that incorporate living materials, rock, and structures that reduce the erosive near-bank velocities and provide in-stream habitat.

**Riparian Restoration** A healthy riparian zone is a critical component of a healthy stream. A well-forested riparian zone provides canopy, buffers polluted runoff, and provides important wildlife corridors. Streams with little or no riparian vegetation commonly have vertical, eroding banks and degraded in-

stream habitat. Hundreds of tons of valuable topsoil are lost each year to bank erosion that could easily be remedied by riparian restoration. **Riparian restoration** involves replacing the native riparian vegetation that has been removed from a degraded stream. Riparian restoration not only increases the ecological value and overall health of a stream, but it also increases the aesthetic value of the entire stream corridor.

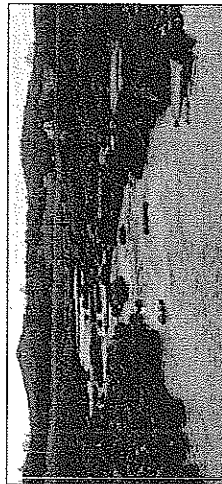


Photo courtesy of CEC

**Livestock Exclusion** Insensitively managed livestock operations can have a negative impact on water quality. Unrestricted livestock access often results in excessive sedimentation from trampled banks, nutrient loading from livestock waste, as well as the elimination of in-stream habitat and riparian vegetation. **Livestock exclusion** involves protecting streams from unrestricted livestock access in areas where their presence has significantly degraded the stream. Livestock exclusion is often accomplished by constructing fences with limited-access crossings and providing landowners with alternative off-stream watering systems.

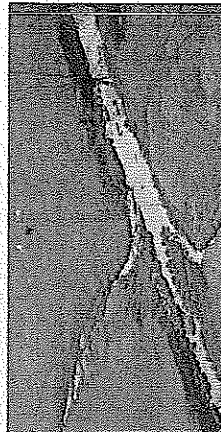


Photo courtesy of CEC

..... **PROJECT SELECTION**

The TSMF funds only projects that have been approved by the SMFT. Preference is given to larger mitigation projects providing the greatest ecological benefit. Often, these projects will include publicly owned lands or multiple privately owned lands. Projects are selected, approved, and funded based on the following criteria:

- Preference is given to projects in the same Level III Ecoregion (Griffith, G.E., et al., 1997), six-digit HUC, or, ideally, same eight-digit HUC as the impacts.
- Projects will generally be located on streams within one stream order of the impact streams.
- The ratio of urban to rural streams impacted should be generally replicated in project locations.
- All other factors being equal, priority should be given to 303(d) streams for which stream mitigation efforts may provide a means to alleviate the causes of water quality and/or habitat impairment.

..... **CONSERVATION EASEMENTS & LANDOWNER BENEFITS**

The TSMF provides numerous benefits to participating landowners. The most direct, measurable benefits are the restoration of a degraded stream, the repair of eroding stream banks, and the reclamation of a riparian buffer. TSMF mitigation projects stop the wasteful erosion that carries away valuable land and prevent participating landowners from watching helplessly as their riparian property washes downstream. TSMF projects increase both the monetary and aesthetic value of riparian lands and allow tax incentives for participating landowners. The TSMF is required to protect every mitigation project with a conservation easement. **Conservation easements** can ensure that the mitigation projects are protected in perpetuity by prohibiting certain activities or land uses within the designated area, while allowing landowners to retain ownership of the property. Additionally, landowners may deduct the value of the donated easement as a charitable contribution.

..... **CONTACT THE TSMF**

The TSMF encourages landowners, environmental groups, and others to submit proposed mitigation project sites that will be evaluated against the mitigation requirements within a given watershed and the project selection criteria. Interested parties may obtain project applications directly from the TSMF or local NRCS offices. For more information, including downloadable applications in PDF format, visit the TSMF website.



Tennessee Stream Mitigation Program  
 Ellington Agricultural Center  
 P.O. Box 41489  
 Nashville, TN 37204-0747  
 (615) 831-9311  
[www.tnstreammitigationprogram.com](http://www.tnstreammitigationprogram.com)

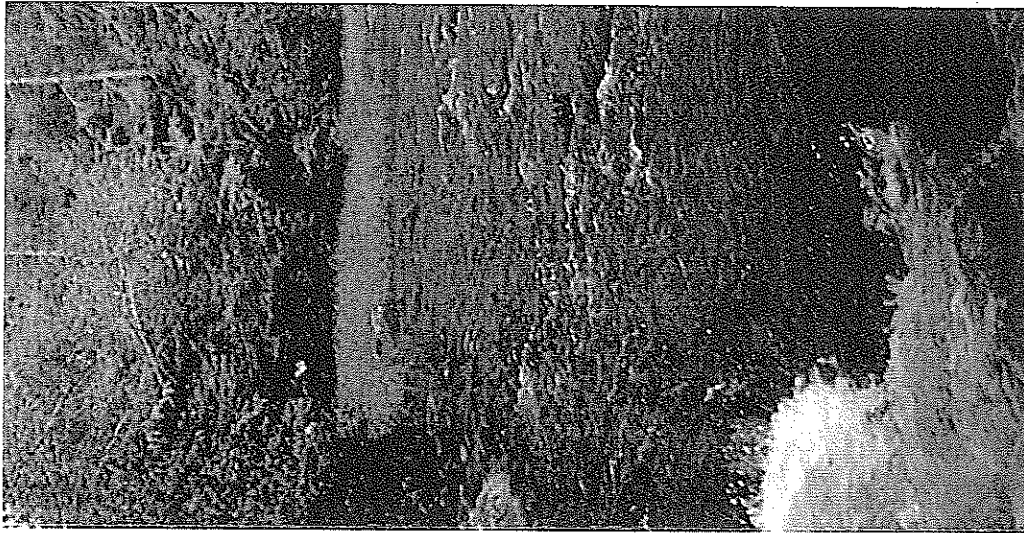


Photo by Jonathon Burr, TDEC

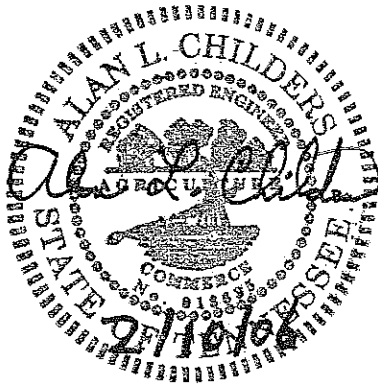
TENNESSEE STREAM  
**TSMF**  
 MITIGATION PROGRAM

3-SD-06-C  
3-G-06-UR

Traffic Impact Study  
Creek Stone Subdivision  
Knox County, TN

February 10, 2006

CCI Project File No. 00525-0002



Prepared for:  
Worley Builders Inc. and Realtors  
P.O. Box 71022  
Knoxville, TN 37938  
Tel: (865) 922-2600  
Fax: (865) 922-2602

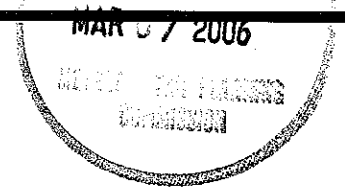
## EXECUTIVE SUMMARY

This report provides a summary of the traffic impact study that was performed for a proposed residential development to be located off Bud Hawkins Road in Northeast Knox County, tentatively called Creek Stone Subdivision. The project is approximately six miles northeast of Interstate 640, east of Washington Pike. The concept plan for this project proposes a subdivision development with a total of 92 single family dwelling units at full build-out. The development entrance will be at a new three-leg intersection on Bud Hawkins Road, located just to the east of Shipe Road.

The purpose of this study was the evaluation of the traffic operational and safety impact of the proposed development upon the adjacent portion of Bud Hawkins Road. Of particular interest was the intersection of Bud Hawkins Road with Shipe Road. The evaluation was performed assuming full build-out of the subdivision.

The following summarizes the study conclusions and recommendations:

- 1.) No major negative traffic volume related impacts will result from construction of the proposed Creek Stone Subdivision. In fact, capacity analyses of anticipated full build-out conditions for the Bud Hawkins Road and Shipe Road intersection indicated excellent operational conditions (LOS "A") for all time periods.
- 2.) The roadway width on Bud Hawkins Road varies from approximately 16.5 to 18 feet between Shipe Road and the proposed subdivision entrance. Widening this section of Bud Hawkins Road to 18 feet, per Knox County standards, should be considered.
- 3.) Intersection corner sight distance for the proposed subdivision access intersection on Bud Hawkins Road was found to be in excess of 400 feet looking both directions. The posted speed limit is 30 mph, so the Knox County requirement for a minimum 300 foot sight distance is adequately satisfied.
- 4.) It is recommended that the intersection of Bud Hawkins Road and Shipe Road be converted to all-way stop traffic control. This recommendation is a result of roadway geometry and sight distance considerations, as opposed to traffic volume considerations.



March 6, 2006

Mark Donaldson  
MPC Executive Director  
Suite 403, City/County Building  
400 Main Street  
Knoxville, TN 37902

Dear Commissioner:

I have attached a copy of the letter from Greg Babbit, Project Manager of TSMP explaining the proposed plan for the Stream Mitigation Project for the two unnamed tributaries to Roseberry Creek, File # 3-SD-06-C & 3-G-06-UR. If you have any questions regarding this project, please contact me at 865-922-2600.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron W. Worley, Jr.", written over a horizontal line.

Ron W. Worley, Jr., President  
Worley Builders, Inc.

Enclosure

RW/mm





February 24, 2006

Worley Builders Inc.  
P.O. Box 71022  
Knoxville, Tennessee 37938

Re: Roseberry Creek Stream Mitigation Project

Dear Mr. Worley:

We appreciate the opportunity to pursue a stream mitigation project on your property. It is our intent to propose approximately 2,000 linear feet of stream restoration and enhancement on two unnamed tributaries to Roseberry Creek flowing across your property. We are currently pursuing expansion of the project upstream on adjacent properties and hope to have definitive project limits within the next two weeks. Once the project limits have been established, we will contact our design engineer who will perform an initial onsite assessment and draft a conceptual plan. The conceptual plan will then be submitted to the Stream Mitigation Review Team (SMRT) who is composed of the Army Corps of Engineers, TVA, EPA, TDEC, USFWS and TWRA. The SMRT committee will vote on the proposed project. Once the project is approved, we will survey the project boundary and request that you sign the Land Preservation Agreement (LPA). When the LPA is executed, TSMP will commence planning, designing and constructing the stream mitigation project. If you have any questions, please do not hesitate to call me at (865) 310-2131.

Sincerely,

A handwritten signature in black ink that reads "Greg Babbit". The signature is written in a cursive style.

Greg Babbit  
Project Manager  
TSMP

Cc: Joey Woodard, TSMP, Director